GRANOSITE GRANOTROWL - SAND COARSE MCR

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
GRANOSITE GRANOTROWL - SAND COARSE MCR

PRODUCT USE
Formally GranoNouveaue ■ Used according to manufacturer's directions.

SUPPLIER
Company: Granosite
Address:
4 Steel Street
Blacktown
NSW, 2148
Australia
Telephone: +61 2 9621 6255
Emergency Tel: +61 1800 039 008
Fax: +61 2 9831 4244

Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE
HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to NOHSC Criteria, and ADG Code.

POISONS SCHEDULE
None

RISK
Risk Codes Risk Phrases
R37/38 ■ Irritating to respiratory system and skin.
R41 ■ Risk of serious damage to eyes.
R52 ■ Harmful to aquatic organisms.
R66 ■ Repeated exposure may cause skin dryness and cracking.

SAFETY
Safety Codes Safety Phrases
S23 ■ Do not breathe gas/fumes/vapour/spray.
S53 ■ Avoid exposure - obtain special instructions before use.
S40 ■ To clean the floor and all objects contaminated by this material use water.
S46 ■ If swallowed IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
acrylic polymer latex	Not avail.	5-15
calcium carbonate	471-34-1	>60
titanium dioxide	13463-67-7	1-5
ethylene glycol monobutyl ether	111-76-2	<1
diethylene glycol monobutyl ether	112-34-5	<1
ammonium hydroxide	1336-21-6	<0.1
isothiazolinones		<0.1
additives		<1
water	7732-18-5	5-15

Section 4 - FIRST AID MEASURES

SWALLOWED
· Immediately give a glass of water.
· First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE
■ If this product comes in contact with the eyes:
· Wash out immediately with fresh running water.
· Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
· Seek medical attention without delay; if pain persists or recurs seek medical attention.
· Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN
■ If skin contact occurs:
· Immediately remove all contaminated clothing, including footwear.
· Flush skin and hair with running water (and soap if available).
· Seek medical attention in event of irritation.

INHALED
· If fumes or combustion products are inhaled remove from contaminated area.
· Other measures are usually unnecessary.

NOTES TO PHYSICIAN
■ Treat symptomatically.
For acute or short term repeated exposures to ethylene glycol:
· Early treatment of ingestion is important. Ensure emesis is satisfactory.
· Test and correct for metabolic acidosis and hypocalcaemia.
· Apply sustained diuresis when possible with hypertonic mannitol.
· Evaluate renal status and begin haemodialysis if indicated. [I.L.O].

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

· There is no restriction on the type of extinguisher which may be used.
· Use extinguishing media suitable for surrounding area.

FIRE FIGHTING
· Alert Fire Brigade and tell them location and nature of hazard.
· Wear breathing apparatus plus protective gloves for fire only.
· Prevent, by any means available, spillage from entering drains or water courses.
· Use fire fighting procedures suitable for surrounding area.

FIRE/EXPLOSION HAZARD
· Non combustible.
· Not considered a significant fire risk, however containers may burn.
Decomposition may produce toxic fumes of:.
carbon dioxide (CO_2).
other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY
· Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

HAZCHEM
None

PERSONAL PROTECTION

Glasses:	Gloves:	Respirator:
Chemical goggles.	PVC chemical resistant type.	Type AK Filter of sufficient capacity

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
· Clean up all spills immediately.
· Avoid breathing vapours and contact with skin and eyes.
· Control personal contact by using protective equipment.
· Contain and absorb spill with sand, earth, inert material or vermiculite.

MAJOR SPILLS
■ Moderate hazard.
· Clear area of personnel and move upwind.
· Alert Fire Brigade and tell them location and nature of hazard.
· Wear breathing apparatus plus protective gloves.
· Prevent, by any means available, spillage from entering drains or water course.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
· Avoid all personal contact, including inhalation.
· Wear protective clothing when risk of exposure occurs.
· Use in a well-ventilated area.
· Avoid contact with moisture.
· DO NOT allow clothing wet with material to stay in contact with skin.

SUITABLE CONTAINER
· Polyethylene or polypropylene container.
· Packing as recommended by manufacturer.
· Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY
· Avoid reaction with oxidising agents.

STORAGE REQUIREMENTS
· Store in original containers.
· Keep containers securely sealed.
· Store in a cool, dry, well-ventilated area.
· Store away from incompatible materials and foodstuff containers.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Notes
Australia Exposure Standards	calcium carbonate (Calcium carbonate (a))		10			(see Chapter 14)
Australia Exposure Standards	titanium dioxide (Titanium dioxide (a))		10			(see Chapter 14)
Australia Exposure Standards	ethylene glycol monobutyl ether (2-Butoxyethanol)	20	96.9	50	242	Sk
Australia Exposure Standards	ammonium hydroxide (Ammonia)	25	17	35	24	

The following materials had no OELs on our records
• diethylene glycol monobutyl ether: CAS:112-34-5
• water: CAS:7732-18-5

PERSONAL PROTECTION

RESPIRATOR
Type AK Filter of sufficient capacity

EYE
· Safety glasses with side shields.
· Chemical goggles.
· Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first- aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness

or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET
· Wear chemical protective gloves, eg. PVC.
· Wear safety footwear or safety gumboots, eg. Rubber.

OTHER
· Overalls.
· Eyewash unit.

ENGINEERING CONTROLS
■ None under normal operating conditions.
General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
■ Acrylic polymer emulsions may contain residual traces of odourous acrylic monomers; the amounts remaining in compounded mixtures represents a very low order of exposure, however this may become noticeable with some materials particularly in confined or poorly ventilated spaces.
White or coloured viscous heavy bodied paste with a mild ammoniacal odour.
Miscible with water.

PHYSICAL PROPERTIES
Liquid.
Mixes with water.

State	Liquid	Molecular Weight	Not applicable.
Melting Range (°C)	Not available.	Viscosity	Not Available
Boiling Range (°C)	100	Solubility in water (g/L)	Miscible
Flash Point (°C)	Not applicable	pH (1% solution)	Not available
Decomposition Temp (°C)	Not available.	pH (as supplied)	8-10
Autoignition Temp (°C)	Not applicable	Vapour Pressure (kPa)	Not available.
Upper Explosive Limit (%)	Not applicable	Specific Gravity (water=1)	1.90 - 2.10
Lower Explosive Limit (%)	Not applicable	Relative Vapour Density (air=1)	>1
Volatile Component (% vol)	10-20	Evaporation Rate	Not available

ethylene glycol monobutyl ether
■ log Kow (Prager 1995): 0.83
■ log Kow (Sangster 1997): 0.8

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY
· Presence of incompatible materials.
· Product is considered stable.
· Hazardous polymerisation will not occur.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS
ACUTE HEALTH EFFECTS
■ Risk of serious damage to eyes.
■ Irritating to respiratory system and skin.

CHRONIC HEALTH EFFECTS
■ Repeated exposure may cause skin dryness and cracking.

TOXICITY AND IRRITATION
ETHYLENE GLYCOL MONOBUTYL ETHER:
DIETHYLENE GLYCOL MONOBUTYL ETHER:
AMMONIUM HYDROXIDE:
CALCIUM CARBONATE:
■ The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
AMMONIUM HYDROXIDE:
CALCIUM CARBONATE:
■ Asthma- like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non- allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.
TITANIUM DIOXIDE:
ETHYLENE GLYCOL MONOBUTYL ETHER:
DIETHYLENE GLYCOL MONOBUTYL ETHER:
AMMONIUM HYDROXIDE:
CALCIUM CARBONATE:
■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.
ETHYLENE GLYCOL MONOBUTYL ETHER:
TITANIUM DIOXIDE:
■ The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.
■ Not available. Refer to individual constituents.
ACRYLIC POLYMER LATEX:
TOXICITY IRRITATION
Oral (rat) LD50: >5000 mg/kg [Manfr.RH]
■ Acrylic polymer emulsions may contain residual traces of odourous acrylic monomers; the amounts remaining in compounded mixtures represents a very low order of

exposure, however this may become noticeable with some materials particularly in confined or poorly ventilated spaces.
CALCIUM CARBONATE:

TOXICITY	IRRITATION
Oral (Rat) LD50: 6450 mg/kg	Skin (rabbit): 500 mg/24h-Moderate Eye (rabbit): 0.75 mg/24h - SEVERE

■ The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis.
No evidence of carcinogenic properties. No evidence of mutagenic or teratogenic effects.
TITANIUM DIOXIDE:

TOXICITY	IRRITATION
Oral (Rat) LD50: >20000 mg/kg * Oral (Mouse) LD50: >10000 mg/kg *	Skin (human): 0.3 mg /3D (int)-Mild *

■ The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.
For titanium dioxide:
Humans can be exposed to titanium dioxide via inhalation, ingestion or dermal contact. In human lungs, the clearance kinetics of titanium dioxide is poorly characterized relative to that in experimental animals.
* IUCLID
ETHYLENE GLYCOL MONOBUTYL ETHER:

TOXICITY	IRRITATION
Oral (rat) LD50: 470 mg/kg Dermal (rabbit) LD50: 220 mg/kg Inhalation (human) TCLo: 100 ppm Inhalation (human) TCLo: 195 ppm/8h * [Union Carbide] Inhalation (Rat) LC50: 450 ppm *	Skin (rabbit): 500 mg, open; Mild Eye (rabbit): 100 mg/24h-Moderate Eye (rabbit): 100 mg SEVERE

■ For ethylene glycol:
Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract. Limited information suggests that it is also absorbed through the respiratory tract; dermal absorption is apparently slow.
For ethylene glycol monoalkyl ethers and their acetates (EGMAEs):
Typical members of this category are ethylene glycol propylene ether (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl ether (EGHE) and their acetates.
EGMAEs are substrates for alcohol dehydrogenase isozyme ADH- 3, which catalyzes the conversion of their terminal alcohols to aldehydes (which are transient metabolites).
Acute Toxicity: Oral LD50 values in rats for all category members range from 739 (EGHE) to 3089 mg/kg bw (EGPE), with values increasing with decreasing molecular weight.
Exposure of pregnant rats to ethylene glycol monobutyl ether (2- butoxyethanol) at 100 ppm or rabbits at 200 ppm during organogenesis resulted in maternal toxicity and embryotoxicity including a decreased number of viable implantations per litter. Slight foetoxicity in the form of poorly ossified or unossified skeletal elements was also apparent in rats.
At least one researcher has stated that the reproductive effects were less than that of other monoalkyl ethers of ethylene glycol.
NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes.
DIETHYLENE GLYCOL MONOBUTYL ETHER:

TOXICITY	IRRITATION
Oral (rat) LD50: 5660 mg/kg Dermal (rabbit) LD50: 4120 mg/kg	Eye (rabbit): 5 mg - SEVERE Eye (rabbit): 20 mg/24h Moderate

■ For diethylene glycol monoalkyl ethers and their acetates:
This category includes diethylene glycol ethyl ether (DGEE), diethylene glycol propyl ether (DGPE) diethylene glycol butyl ether (DGBE) and diethylene glycol hexyl ether (DGHE) and their acetates.
Acute toxicity: There are adequate oral, inhalation and/or dermal toxicity studies on the category members.
AMMONIUM HYDROXIDE:

TOXICITY	IRRITATION
Oral (rat) LD50: 350 mg/kg Oral (human) LDLo: 43 mg/kg Inhalation (human) LCLo: 5000 ppm/5m Inhalation (human) TCLo: 20 ppm Inhalation (rat) LC50: 2000 ppm/4h Unreported (man) LDLo: 132 mg/kg	Eye (rabbit): 0.25 mg SEVERE Eye (rabbit): 1 mg/30s SEVERE

WATER:
■ No significant acute toxicological data identified in literature search.

CARCINOGEN

Titanium dioxide	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	2B
2-Butoxyethanol	International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs	Group	3

SKIN

ethylene glycol monobutyl ether	ND	Notes	Sk

Section 12 - ECOLOGICAL INFORMATION

Harmful to aquatic organisms.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility

titanium dioxide	HIGH		LOW	HIGH
ethylene glycol monobutyl ether	LOW	LOW	LOW	HIGH
diethylene glycol monobutyl ether	LOW		LOW	HIGH
ammonium hydroxide	LOW		LOW	HIGH
water	LOW		LOW	HIGH

Section 13 - DISPOSAL CONSIDERATIONS

· Recycle wherever possible.
· Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
· Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).
· Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.
· Containers may still present a chemical hazard/ danger when empty.
· Return to supplier for reuse/ recycling if possible.
Otherwise:
· If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
· Where possible retain label warnings and MSDS and observe all notices pertaining to the product.

Section 14 - TRANSPORTATION INFORMATION

HAZCHEM:
None (ADG7)
NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: ADG7, UN, IATA, IMDG

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE
None

REGULATIONS
Regulations for ingredients

calcium carbonate (CAS: 471-34-1,13397-26-7,15634-14-7,1317-65-3) is found on the following regulatory lists;
"Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","GESAMP/EHS Composite List - GESAMP Hazard Profiles","IMO IBC Code Chapter 17: Summary of minimum requirements","International Council of Chemical Associations (ICCA) - High Production Volume List","OECD Representative List of High Production Volume (HPV) Chemicals"

titanium dioxide (CAS: 13463-67-7,1317-70-0,1317-80-2,12188-41-9,1309-63-3,100292-32-8,101239-53-6,116788-85-3,12000-59-8,12701-76-7,12767-65-6,12789-63-8,1344-29-2,185323-71-1,185828-91-5,188357-76-8,188357-79-1,195740-11-5,221548-98-7,224963-00-2,246178-32-5,252962-41-7,37230-92-5,37230-94-7,37230-95-8,37230-96-9,39320-58-6,39360-64-0,39379-02-7,416845-43-7,494848-07-6,494848-23-6,494851-77-3,494851-98-8,55068-84-3,55068-85-4,552316-51-5,62338-64-1,767341-00-4,97929-50-5,98084-96-9) is found on the following regulatory lists;
"Australia Exposure Standards","Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","Australia Therapeutic Goods Administration (TGA) Substances that may be used as active ingredients in Listed medicines","Australia Therapeutic Goods Administration (TGA) Sunscreening agents permitted as active ingredients in listed products","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","GESAMP/EHS Composite List - GESAMP Hazard Profiles","IMO IBC Code Chapter 17: Summary of minimum requirements","International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs","OECD Representative List of High Production Volume (HPV) Chemicals"

ethylene glycol monobutyl ether (CAS: 111-76-2) is found on the following regulatory lists;
"Australia Exposure Standards","Australia Hazardous Substances","Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances","International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs","OECD Representative List of High Production Volume (HPV) Chemicals"

diethylene glycol monobutyl ether (CAS: 112-34-5) is found on the following regulatory lists;
"Australia Hazardous Substances","Australia High Volume Industrial Chemical List (HVICL)","Australia Inventory of Chemical Substances (AICS)","Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5","IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances","OECD Representative List of High Production Volume (HPV) Chemicals"

ammonium hydroxide (CAS: 1336-21-6) is found on the following regulatory lists;
"Australia Hazardous Substances","Australia Inventory of Chemical Substances (AICS)","Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)","CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP","IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk","International Council of Chemical Associations (ICCA) - High Production Volume List","OECD Representative List of High Production Volume (HPV) Chemicals"

water (CAS: 7732-18-5) is found on the following regulatory lists;
"Australia Inventory of Chemical Substances (AICS)","IMO IBC Code Chapter 18: List of products to which the Code does not apply","OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Granosite GRANOTROWL - SAND COARSE MCR (CW: 8064-03)
No data for acrylic polymer latex (CAS: , Not avail)

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
calcium carbonate	471-34-1, 13397-26-7, 15634-14-7, 1317-65-3
titanium dioxide	13463-67-7, 1317-70-0, 1317-80-2, 12188-41-9, 1309-63-3, 100292-32-8, 101239-53-6, 116788-85-3, 12000-59-8, 12701-76-7, 12767-65-6, 12789-63-8, 1344-29-2, 185323-71-1, 185828-91-5, 188357-76-8, 188357-79-1, 195740-11-5, 221548-98-7, 224963-00-2, 246178-32-5, 252962-41-7, 37230-92-5, 37230-94-7, 37230-95-8, 37230-96-9, 39320-58-6, 39360-64-0, 39379-02-7, 416845-43-7, 494848-07-6, 494848-23-6, 494851-77-3, 494851-98-8, 55068-84-3, 55068-85-4, 552316-51-5, 62338-64-1, 767341-00-4, 97929-50-5, 98084-96-9

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.
A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

Issue Date: 20-Sep-2010
Print Date: 20-Sep-2010

This is the end of the MSDS.